

Parasitology Research

Founded as
Zeitschrift für
Parasitenkunde

Volume 75 · 1988/89

Editors

B.M. Honigberg H. Mehlhorn W. Wülfken

Editorial Board

M. Aikawa, Cleveland	W. Kunz, Düsseldorf
I.B.R. Bowman, Edinburgh	R.D. Lumsden, New Orleans
A. Capron, Lille	D. McLaren, London
B. Chobotar, Berrien Springs	E.A. Meuleman, Amsterdam
P.A. D'Alesandro, New York	R. Nussenzweig, New York
D.D. Despommier, New York	H.J. Risse, Berlin
J. Dönges, Würzburg	L.S. Roberts, Lubbock
J. Eckert, Zürich	H.J. Saz, Notre Dame
J.K. Frenkel, Kansas City	H.M. Seitz, Bonn
K.T. Friedhoff, Hannover	J.D. Smyth, London
P. Götz, Berlin	E.J.L. Soulsby, Cambridge
H.-G. Heidrich, Martinsried	K.D. Spindler, Düsseldorf
F. Hörchner, Berlin	R.C.A. Thompson, Murdoch
L. Jenni, Basel	G.M. Urquhart, Glasgow
P. Köhler, Zürich	K. Vickerman, Glasgow



Springer International

Parasitology Research

was founded in 1928. Volumes 1–7 named "Zeitschrift für wissenschaftliche Biologie", Dept. F. "Zeitschrift für Parasitenkunde" edited by A. Hase. From Volume 21 edited by G. Piekarski, from Vol. 44 (1974) edited by B.M. Honigberg and G. Piekarski; from Vol. 45 (1974) edited by B. M. Honigberg, G. Piekarski and W. Wülfker; from Vol. 53 (1977) edited by J. Eckert, B.M. Honigberg, G. Piekarski and W. Wülfker; from Vol. 67 (1982) edited by J. Eckert, B.M. Honigberg, H. Mehlhorn, G. Piekarski, H.M. Seitz and W. Wülfker; from Vol. 68 (1982) edited by B.M. Honigberg, H. Mehlhorn, H.M. Seitz and W. Wülfker; from Vol. 73 named "Parasitology Research" edited by B.M. Honigberg, H. Mehlhorn and W. Wülfker.

Organ der Deutschen Gesellschaft für Parasitologie

Submission of a manuscript implies: that the work described has not been published before (except in the form of an abstract or as part of a published lecture, review, or thesis); that it is not under consideration for publication elsewhere; that its publication has been approved by all coauthors, if any, as well as by the responsible authorities at the institute where the work has been carried out; that, if and when the manuscript is accepted for publication, the authors agree to automatic transfer of the copyright to the publisher; and that the manuscript will not be published elsewhere in any language without the consent of the copyright holders.

All articles published in this journal are protected by copyright, which covers the exclusive rights to reproduce and distribute the article (e.g., as offprints), as well as all translation rights. No material published in this journal may be reproduced photographically or stored on microfilm, in electronic data bases, video disks, etc., without first obtaining written permission from the publisher.

The use of general descriptive names, trade names, trademarks, etc., in this publication, even if not specifically identified, does not imply that these names are not protected by the relevant laws and regulations.

While the advice and information in this journal is believed to be true and accurate at the date of its going to press, neither the authors, the editors, nor the publisher can accept any legal responsibility for any errors or omissions that may be made. The publisher makes no warranty, express or implied, with respect to the material contained herein.

Special regulations for photocopies in the USA: Photocopies may be made for personal or in-house use beyond the limitations stipulated under Section 107 or 108 of U.S. Copyright Law, provided a fee is paid. This fee is US \$ 0.20 per page, or a minimum of US \$ 1.00 if an article contains fewer than five pages. All fees should be paid to the Copyright Clearance Center, Inc., 21 Congress Street, Salem, MA 01970, USA, stating the ISSN 0044-3255, the volume, and the first and last page numbers of each article copied. The copyright owner's consent does not include copying for general distribution, promotion, new works, or resale. In these cases, specific written permission must first be obtained from the publisher.

Contents

Abdallah MA, Abdel-Hafez SK, Al-Yaman FM: *Trypanosoma acomys* (Wenyon, 1909): reproductive forms and course of parasitemia in the natural host *Acomys cahirinus* (Desmarest, 1819) 439

Abdel-Ghaffar F → Marzouk M
Abdel-Hafez SK → Abdallah MA
Abe K → Yamane Y
Aisien SO, Ogiji EE: Observations on the lipids of *Oochoristica agamae* (Cestoda) 307

Akao S, Yamakami Y, Nishiyama M, Tanaka M: Aminopeptidase activity in the brains of mice with chronic *Toxoplasma gondii* infections 186

Aly AH → Ramadan MM
Al-Yaman FM → Abdallah MA
Ancelle T → Dupouy-Camet J
Ancelle T → Fourestié V
Anthoons JAMS, Van Marck EAE, Giagase PLJ, Stevens WJ: Immunohistochemical characterization of the mononuclear cells in the brain of the rat with an experimental chronic *Trypanosoma brucei gambiense* infection 251

Araki T → Takahashi Y
Araújo-Jorge TC, Sampaio EP, De Souza W, Nazareth Meirelles M de: *Trypanosoma cruzi*: the effect of variations in experimental conditions on the levels of macrophage infection in vitro 257

Arellano J → Kretschmer RR

Barthe D → Rondelaud D
Bauer C → Diesing L
Bayne CJ → Dikkeboom R
Bazin H → Pérez O
Beaumelle BD → Vial HJ
Becker M → Kalinna B
Becker W → Rupprecht H
Bergh SG van den → Oordt BEP van
Bernard F → Grellier P
Bhisutthibhan J → Thanomsub BW
Bilge FH → Kadipasaoglu AK
Bohn A → Dorzok U
Bonaldo MC → Soares MJ
Bortoletti G, Gabriele F, Palmas C: Kinetics of mast cells, eosinophils and phospholipase B activity in the spontaneous-cure response of two strains of mice (rapid and slow responder) to the cestode *Hymenolepis nana* 465

Bougnoux ME → Dupouy-Camet J
Bougnoux ME → Fourestié V
Brockelman CR → Mackenstedt U
Brockelman CR → Thanomsub BW
Brossard M → Girardin P
Brossard M → Rutti B
Brown DS → Southgate VR
Bruyn B de → Srivastava VML
Buchmann K: Temperature-dependent reproduction and survival of *Pseudodactylogyrus bini* (Monogenea) on the European eel (*Anguilla anguilla*) 162

Bylund G → Yamane Y

Capron A → Pérez O
Capron M → Pérez O
Carmichael IH → Soll MD
Castro EM → Kretschmer RR
Chadwick CJ, Semoff S, Hommel M: Localisation of *Plasmodium chabaudi* antigens by cryomicrotomy using monoclonal antibodies and the immunogold-silver staining method for light microscopy 247

Chatterjee KH → Zahner H
Christensen NØ, Odaibo AB, Simonsen PE: *Echinostoma* population regulation in experimental rodent definitive hosts 83

Conradt U, Peters W: Investigations on the occurrence of pinocytosis in the tegument of *Schistocephalus solidus* 630

Cordero-Del-Campillo M → Diez-Baños P
Coussement W → Verheyen A

Dagger F → Hernández AG
De Souza W → Araújo-Jorge TC
Dedet J-P → Roussilhon C
Demeš P, Pindak FF, Wells DJ, Gardner WA Jr: Adherence and surface properties of *Tritrichomonas mobilensis*, an intestinal parasite of the squirrel monkey 589

Diesing L, Heydorn AO, Matuschka FR, Bauer C, Pipano E, Wall T de, Potgieter F: *Besnoitia besnoiti*: Studies on the definitive host and experimental infections in cattle 114

Diez-Baños N → Diez-Baños P
Diez-Baños P, Morrondo-Pelayo MP, Diez-Baños N, Cordero-Del-Campillo M, Núñez-Gutiérrez MC: The experimental receptivity of *Helicella (Helicella) itala* and *Cepaea nemoralis* (Mollusca, Helicidae) to larvae of *Muellerius* sp. and *Neostrongylus linearis* (Nematoda, Protostrongylidae) from chamois (*Rupicapra rupicapra*) 488

Dikkeboom R, Bayne CJ, Knaap WPW van der, Tijnagel JMGH: Possible role of reactive forms of oxygen in in vitro killing of *Schistosoma mansoni* sporocysts by hemocytes of *Lymnaea stagnalis* 148

Dissous C → Dubremetz JF
Dorzok U, Bohn A, König W: Proteins of *Nippostrongylus brasiliensis* analyzed by immunoblotting 482

Dubremetz JF, Ferreira E, Dissous C: Isolation and partial characterization of rhoptries and micronemes from *Eimeria nieschulzi* zoites (Sporozoa, Coccidia) 449

Dubremetz JF → Pohl U
Dubremetz J-F → Tomavo S
Dupouy-Camet J, Bougnoux ME, Ancelle T, Fagard R, Lapierre J: Antigenic characteristics of two strains of *Trichinella spiralis* isolated during the horse-meat-related outbreaks of 1985 in France 79

Eckert J, Thompson RCA, Michael SA, Kumaratilake LM, El-Sawah HM: *Echinococcus granulosus* of camel origin: development in dogs and parasite morphology 536

Eckert J → Worbes H
Eklove H → Webb RA
Eling WMC → Schettlers TPM
El-Matbouli M, Hoffmann R: Experimental transmission of two *Myxobolus* spp. developing bisporogony via tubificid worms 461

Elowni EE → Nurelhuda IEM
El-Sawah HM → Eckert J
Elwasila M: *Haemogregarina* sp. (Apicomplexa: Adeleorina) from the gecko *Tarentola annularis* in the Sudan: fine structure and life-cycle trials 444

Enders B → Raether W
Endo T, Yagita K, Yasuda T, Nakamura T: Detection and localization of actin in *Toxoplasma gondii* 102

Endo T → Yasuda T
Entzeroth R → Pohl U
Entzeroth R → Tomavo S

Fagard R → Dupouy-Camet J
Fagerholm H-P: Incubation in rats of a nematodal larva from cod to establish its specific identity: *Contracaecum osculatum*, (Rudolphi) 57

Fairweather I → Mahendrasingam S
Fairweather I → McCullough JS
Fairweather I → Skuce PJ
Fandeur T → Roussilhon C
Ferguson DJP, Hutchison WM, Pettersen E: Tissue cyst rupture in mice chronically infected with *Toxoplasma gondii*. An immunocytochemical and ultrastructural study 599

Ferreira E → Dubremetz JF
Fiori MG, Lowndes HE: Histochemical study of *Sarcocystis* sp. intramuscular cysts in gastrocnemius and soleus of the cat 123

Fok É → Kassai T
Fourestié V, Bougnoux ME, Ancelle T, Liance M, Roudot-Thoraval F, Naga H, Pairon-Pennachioni M, Rauss A, Lejocque JL: Randomized trial of albendazole versus tiabendazole plus flubendazole during an outbreak of human trichinellosis 36

Fournier A, Pages JR, Toussaint R, Mouahid A: Can tegumental morphology be used as a taxonomic criterion between *Schistosoma haematobium*, *S. intercalatum*, and *S. bovis*? 375

Fucharoen S → Thanomsub BW
Fujii T: Characterization of the antigens that induce the production of antibodies in mice immediately after infection with *Angiostrongylus cantonensis* 636

Fujino T → Matsui T
 Fujita K → Horii Y
 Furuki J → Takahashi Y

Gabriele F → Bortoletti G
 Gardner WA Jr → Demes P
 Geyer E → Kalinna B
 Ghaffar FA, Heydorn AO, Mehlhorn H:
 The fine structure of cysts of *Sarcocystis moulei* from goats 416
 Ghatak S → Singh RP
 Gigase PLJ → Anthoons JAMS
 Girardin P, Brossard M: Effects of cyclosporin A on humoral immunity to ticks and on cutaneous immediate and delayed hypersensitivity reactions to *Ixodes ricinus* L. salivary-gland antigens in re-infested rabbits 657
 Gold D: Delayed-type hypersensitivity to *Entamoeba histolytica* in mice and hamsters: a comparison 335
 Goldenberg S → Soares MJ
 Gothe R → Kalvelage H
 Grelaud G → Pernin P
 Grellier P, Picard I, Bernard F, Mayer R, Heidrich H-G, Monsigny M, Schrével J: Purification and identification of a neutral endopeptidase in *Plasmodium falciparum* schizonts and merozoites 455
 Gustafsson MKS, Wikgren MC: Development of immunoreactivity to the invertebrate neuropeptide small cardiac peptide B in the tapeworm *Diphyllobothrium dendriticum* 396
 Gutiérrez-Peña EJ: Scanning electron microscopic study of adults and microfilariae of *Dunnifilaria meningica* (Filarioidea: Onchocercidae) 470

Haberkorn A → Mehlhorn H
 Haberkorn A → Schmahl G
 Hänel H → Raether W
 Halton DW → Mahendrasingam S
 Hassan T → Nurelhuda IEM
 Hecker H → Rudin W
 Heidrich H-G → Grellier P
 Hermsen CC → Schetters TPM
 Hernández AG, Payares G, Misle A, Dagher F: The heterogeneity of *Leishmania* cell-surface antigens 583
 Heydorn AO → Diesing L
 Heydorn AO → Ghaffar FA
 Hilderson H → Vercruyssse J
 Hinoue H → Sugiyama H
 Hoffmann R → El-Matbouli M
 Hofmann J → Raether W
 Hommel M → Chadwick CJ
 Horii Y, Owhashi M, Fujita K, Nakanishi H, Ishii A: A comparative study on eosinophil and neutrophil chemotactic activities of various helminth parasites 76
 Horiuchi T → Sugiyama H
 Hüther AM, Zhang Y, Sauer A, Parnham MJ: Antimalarial properties of ebselen 353
 Hutchison WM → Ferguson DJP
 Ibrahim JB → Kamis AB

Igarashi M → Omata Y
 Iijima T → Matsui T
 Iijima T → Morii T
 Iseki M, Maekawa T, Moriya K, Uni S, Takada S: Infectivity of *Cryptosporidium muris* (strain RN 66) in various laboratory animals 218
 Ishii A → Horii Y

Jenni L → Schweizer J
 Jones A → Southgate VR
 Jouault T → Pérez O

Kadipasaoglu AK, Bilge FH: Partial characterization of the adsorbed protein layer on *Dirofilaria immitis* (Nematoda) cuticle 554
 Kalinna B, Becker M, Geyer E: Immunoelectrophoretic analyses of antigens shared by the vesicular fluid and cyst wall of *Taenia crassiceps* and *Taenia saginata* metacestodes 568
 Kalvelage H, Möckl T, Gothe R: Exposure of unfed *Rhipicephalus evertsi imeticus* adults to single-frequency acoustic waves 663
 Kamata Y → Sugiyama H
 Kamis AB, Ibrahim JB: Effects of testosterone on blood leukocytes in *Plasmodium berghei*-infected mice 611
 Kassai T, Takáts C, Fok É, Redl P: Activity of luxabendazole against liver flukes, gastrointestinal roundworms, and lungworms in naturally infected sheep 14
 Katahira J → Sugiyama H
 Kawamoto F, Shozawa A, Kumada N, Kojima K: Possible roles of cAMP and Ca²⁺ in the regulation of miracidial transformation in *Schistosoma mansoni* 368
 Kawanabe M, Nojima H, Uchikawa R: Transmammary transmission of *Strongyloides ratti* 50
 Kelly C → Knight M
 Klein MJ → Richard J
 Knaap WPW van der → Dikkeboom R
 Knight M, Kelly C, Rodrigues V, Yi X, Wamachi A, Smithers SR, Simpson AJG: A cDNA clone encoding part of the major 25000-dalton surface membrane antigen of adult *Schistosoma mansoni* 280
 Knowles RJ → Southgate VR
 Kobayashi F → Matsui T
 Kobayashi F → Morii T
 König W → Dorzok U
 Køie M: On the morphology and life history of *Lecithaster gibbosus* (Rudolphi, 1802) Lühe, 1901 (Digenea, Hemiuroidae) 361
 Kojima K → Kawamoto F
 Kon VB, Papadimitriou JM, Robertson TA, Warton A: Quantitation of concanavalin A and wheat germ agglutinin binding by two strains of *Trichomonas vaginalis* of differing pathogenicity using gold particle-conjugated lectins 7
 Kozaki S → Sugiyama H
 Kretschmer RR, Castro EM, Rico G, Pa-

checo G, Noriega R, Arellano J: Further characterization of a human monocyte locomotion inhibitory factor produced by axenically grown *Entamoeba histolytica* 245
 Krungkrai J, Webster HK, Yuthavong Y: Characterization of cobalamin-dependent methionine synthase purified from the human malarial parasite, *Plasmodium falciparum* 512
 Kumada N → Kawamoto F
 Kumaratilake LM → Eckert J

Lapierre J → Dupouy-Camet J
 Lastre M → Pérez O
 Lauwers F → Verheyen A
 Leiro J, Santamarina MT, Sernández L, Sanmartín ML, Ubeira FM: The effect of cyclosporine A on murine trichinellosis 330
 Lejond JL → Fourestié V
 Liance M → Fourestié V
 Liu TP, Myrick GR: Deformities in the spore of *Nosema apis* as induced by itraconazole 498
 Lowndes HE → Fiori MG

Mackenstedt U, Brockelman CR, Mehlhorn H, Raether W: Comparative morphology of human and animal malaria parasites. I. Host-parasite interface 528
 Maekawa T → Iseki M
 Maes L → Verheyen A
 Mahendrasingam S, Fairweather I, Halton DW: Spermatogenesis and the fine structure of the mature spermatozoon in the free proglottis of *Trilocularia acanthiævulgaris* (Cestoda, Tetraphyllidea) 287
 Maraghi S, Molyneux DH: Studies on cross-immunity in *Herpetosoma trypanosomes* of *Microtus*, *Clethrionomys* and *Apodemus* 175
 Marsboom R → Verheyen A
 Marzouk M, Abdel-Ghaffar F, Mosaad MN: Effects of infection with *Eimeria labbeana* on some serum constituents and liver glycogen in the palm dove (*Streptopelia senegalensis aegyptiaca*) 183
 Matsui T, Morii T, Iijima T, Kobayashi F, Fujino T: Transformation of oocysts from several coccidian species by heat treatment 264
 Matsui T → Morii T
 Matsumoto Y → Yoshikawa H
 Matuschka F-R: Studies on the life cycle of *Sarcocystis dugesii* in the Madeiran wall lizard *Podarcis* (syn. *Lacerta*) *dugesii* 73
 Matuschka FR → Diesing L
 Mayer R → Grellier P
 McCullough JS, Fairweather I: The fine structure and possible functions of scolex gland cells in *Trilocularia acanthiævulgaris* (Cestoda, Tetraphyllidea) 575
 Mehlhorn H, Schmahl G, Haberkorn A:

Toltrazuril effective against a broad spectrum of protozoan parasites 64
 Mehlhorn H → Ghaffar FA
 Mehlhorn H → Mackenstedt U
 Mehlhorn H → Schmahl G
 Menrath M → Turner CMR
 Michael SA → Eckert J
 Misle A → Hernández AG
 Mizuno N → Takahashi Y
 Möckl T → Kalvelage H
 Molyneux DH → Maraghi S
 Molyneux DH → Mungomba LM
 Monsigny M → Grellier P
 Morii T, Matsui T, Kobayashi F, Iijima T: Some aspects of *Leucocytozoon coryli* reinfection in chickens 194
 Morii T → Matsui T
 Moriya K → Iseki M
 Morris DL → Richards KS
 Morrondo-Pelayo MP → Diez-Baños P
 Mosaad MN → Marzouk M
 Mouahid A → Fournier A
 Mungomba LM, Molyneux DH, Wallbanks KR: Host-parasite relationship of *Trypanosoma corvi* in *Ornithomyia avicularia* 167
 Muñiz E → Ortega-Pierres G
 Myrick GR → Liu TP
 Naga H → Fourestié V
 Nakabayashi T → Omata Y
 Nakabayashi T → Ono T
 Nakamura T → Endo T
 Nakamura T → Yasuda T
 Nakanishi H → Horii Y
 Nazareth Meirelles M de → Araújo-Jorge TC
 Neyrinck JL → Pérez O
 Nishiyama M → Akao S
 Nojima H → Kawanabe M
 Noriega R → Kretschmer RR
 Núñez-Gutiérrez MC → Diez-Baños P
 Nurelhuda IEM, Elowni EE, Hassan T: Anthelmintic activity of praziquantel on *Raillietina tetragona* in chickens 655
 Odaibo AB → Christensen NØ
 Ogiji EE → Aisien SO
 Okamoto T → Yamane Y
 Oliver G: Complement to the anatomy of the oncomiracidium of *Serranicotyle labracis* (Van Beneden and Hesse 1863) (Monogenea, Polyopisthocotylea). Originality of its osmoregulatory system 627
 Omata Y, Igarashi M, Ramos MI, Nakabayashi T: *Toxoplasma gondii*: Antigenic differences between endozoites and cystozoites defined by monoclonal antibodies 189
 Ono T, Nakabayashi T: Gametocytogenesis induction in cultured *Plasmodium falciparum* and further development of the gametocytes to ookinetes in prolonged culture 348
 Oord BEP van, Tielens AGM, Bergh SG van den: The energy metabolism of *Schistosoma mansoni* during its development in the hamster 31
 Op den Kamp JAF → Vial HJ
 Ortega-Pierres G, Muñiz E, Vázquez RC, Parkhouse RME: Protection against *Trichinella spiralis* induced by purified stage-specific surface antigens of infective larvae 563
 Osaki Y → Yamane Y
 Ohashi M → Horii Y
 Pacheco G → Kretschmer RR
 Pages JR → Fournier A
 Pairon-Pennachioni M → Fourestié V
 Palmas C → Bortolotti G
 Papadimitriou JM → Kon VB
 Parkhouse RME → Ortega-Pierres G
 Parnham MJ → Hüther AM
 Payares G → Hernández AG
 Pérez O, Lastre M, Capron M, Neyrinck JL, Jouault T, Bazin H, Capron A: Total and specific IgE in serum and cerebrospinal fluid of rats and guinea pigs infected with *Angiostrongylus cantonensis* 476
 Pernin P, Grelaud G: Application of isoenzymatic typing to the identification of nonaxenic strains of *Naegleria* (Protozoa, Rhizopoda) 595
 Peters W → Conradt U
 Pettersen E → Ferguson DJP
 Phillips RS → Trenholme KR
 Picard I → Grellier P
 Pindak FF → Demeš P
 Pipano E → Diesing L
 Pohl U, Dubremetz JF, Entzeroth R: Characterization and immunolocalization of the protein contents of micro-nemes of *Sarcocystis muris* cystozoites (Protozoa, Apicomplexa) 199
 Potgieter F → Diesing L
 Raether W, Enders B, Hofmann J, Schwannecke U, Seidenath H, Hänel H, Uphoff M: Antimalarial activity of new floxacrine-related acridinedione derivatives: studies on blood schizontocidal action of potential candidates against *P. berghei* in mice and *P. falciparum* in vivo and in vitro 619
 Raether W, Seidenath H, Hofmann J: Potent antibacterial fluoroquinolones with marked activity against *Leishmania donovani* in vivo 412
 Raether W → Mackenstedt U
 Ramadan MM, Saoud MFA, Aly AH: *Caprimulgorsis jhai* sp. nov. (Trematoda: Leiodendriidae), an intestinal parasite of the Egyptian house sparrow 28
 Ramos MI → Omata Y
 Rauss A → Fourestié V
 Redl P → Kassai T
 Referee acknowledgement 250
 Reiner G, Zahner H: Reactivity of IgE in human *Schistosoma mansoni* sera to *S. mansoni* antigens 392
 Richard J, Klein MJ, Stoeckel ME: Neural and glandular localisation of substance P in *Echinostoma caproni* (Trematoda-Digenea) 641
 Richards KS, Morris DL: Evidence for the development of human hydatid daughter cysts from protoscoleces 333
 Richards KS → Rogan MT
 Rico G → Kretschmer RR
 Robertson TA → Kon VB
 Rodrigues V → Knight M
 Röttcher D → Zweygarth E
 Rogan MT, Richards KS: Development of the tegument of *Echinococcus granulosus* (Cestoda) protoscoleces during cystic differentiation in vivo 299
 Rollinson D → Vercruysses J
 Rondelaud D, Barthe D: Reconstitution anormale de la glande digestive chez *Lymnaea glabra* Müller et *L. truncatula* Müller infestées par *Fasciola hepatica* L. 165
 Roudot-Thoraval F → Fourestié V
 Roussilhon C, Fandeur T, Dedet J-P: Long-term protection of squirrel monkeys (*Saimiri sciureus*) against *Plasmodium falciparum* challenge inoculations after various time intervals 118
 Rudin W, Hecker H: Lectin-binding sites in the midgut of the mosquitoes *Anopheles stephensi* Liston and *Aedes aegypti* L. (Diptera: Culicidae) 268
 Rupprecht H, Becker W, Schwanbek A: Alterations in hemolymph components in *Biomphalaria glabrata* during long-term infection with *Schistosoma mansoni* 233
 Rutti B, Brossard M: Repetitive detection by immunoblotting of an integumental 25-kDa antigen in *Ixodes ricinus* and a corresponding 20-kDa antigen in *Rhipicephalus appendiculatus* with sera of pluriinfested mice and rabbits 325
 Sänger I → Zahner H
 Sampaio EP → Araújo-Jorge TC
 Sanmartín ML → Leiro J
 Santamarina MT → Leiro J
 Saoud MFA → Ramadan MM
 Sauer A → Hüther AM
 Saxena JK → Singh RP
 Saz HJ → Srivastava VML
 Schaub GA, Schnitker A: Influence of *Blastocerithidia triatomae* (Trypanosomatidae) on the reduviid bug *Triatoma infestans*: alterations in the Malpighian tubules 88
 Schetters TPM, Hermsen CC, Van Zon AAJC, Eling WMC: Stage-specific proteins of *Plasmodium berghei*-infected red blood cells detected by antibodies of immune mouse serum 69
 Schmahl G, Mehlhorn H: Treatment of fish parasites. 4. Effects of sym. triazine (toltrazuril) on Monogenea 132
 Schmahl G, Mehlhorn H, Haberkorn A: Sym. triazine (toltrazuril) effective against fish-parasitizing Monogenea 67
 Schmahl G, Taraschewski H, Mehlhorn H: Chemotherapy of fish parasites 503
 Schmahl G → Mehlhorn H
 Schmidt J: Expression of glycoconjugates

on normally developing and immunologically impaired *Hymenolepis diminuta* 155

Schnitker A → Schaub GA

Schrével J → Grellier P

Schwanbek A → Rupprecht H

Schwannecke U → Raether W

Schweizer J, Tait A, Jenni L: The timing and frequency of hybrid formation in African trypanosomes during cyclical transmission 98

Seibold G → Zahner H

Seidenath H → Raether W

Semoff S → Chadwick CJ

Sernández L → Leiro J

Shiwaku K → Yamane Y

Shozawa A → Kawamoto F

Shukla OP → Singh RP

Simonsen PE → Christensen NØ

Simpson AJG → Knight M

Singh RP, Saxena JK, Ghatak S, Shukla OP, Wittich R-M, Walter RD: Polyamine metabolism in *Setaria cervi*, the bovine filarial worm 311

Skuce PJ, Fairweather I: *Fasciola hepatica*: the effect of the sodium ionophore monensin on the adult tegument 223

Smith NC: The role of free oxygen radicals in the expulsion of primary infections of *Nippostrongylus brasiliensis* 423

Smithers SR → Knight M

Soares MJ, Souto-Padrón T, Bonaldo MC, Goldenberg S, Souza W de: A stereological study of the differentiation process in *Trypanosoma cruzi* 522

Soll MD, Carmichael IH: Efficacy of injectable ivermectin against the itch mite (*Psorergates ovis*) of sheep 81

Southgate VR, Brown DS, Warlow A, Knowles RJ, Jones A: The influence of *Calicophoron microbothrium* on the susceptibility of *Bulinus tropicus* to *Schistosoma bovis* 381

Southgate VR → Vercruyse J

Souto-Padrón T → Soares MJ

Souza W de → Soares MJ

Srivastava VML, Saz HJ, Bruyn B de: Comparisons of glucose and amino acid use in adults and microfilariae of *Brugia pahangi* 1

Stevens WJ → Anthoons JAMS

Stoeckel ME → Richard J

Sugiyama H, Hinoue H, Katahira J, Horiochi T, Tomimura T, Kamata Y, Kozaki S: Production of monoclonal antibody to characterize the antigen of *Paragonimus westermani* 144

Suzuki M → Waki S

Tait A → Schweizer J

Tait A → Turner CMR

Takada S → Iseki M

Takagi T → Waki S

Takahashi Y, Uno T, Furuki J, Yamada S, Araki T: The morphology of *Trichinella spiralis*: ultrastructural study of the mid- and hindgut of the muscle larvae 316

Takahashi Y, Uno T, Yagi J, Yamada S, Araki T: Morphology of the alimentary tract of *Trichinella spiralis* muscle larvae with emphasis on the esophagus 42

Takáts C → Kassai T

Tanaka M → Akao S

Taraschewski H → Schmahl G

Thanomsub BW, Fucharoen S, Brockelman CR, Bhisutthibhan J: Effects of thalassaemic serum on the in vitro development of the malarial parasite *Plasmodium falciparum* 212

Thompson RCA → Eckert J

Thompson RCA → Worbes H

Thuet MJ → Vial HJ

Tielens AGM → Oordt BEP van

Tijnagel JM GH → Dikkeboom R

Tomavo S, Dubremetz J-F, Entzheroth R: Characterization of a surface antigen of *Eimeria nieschulzi* (Apicomplexa, Eimeriidae) sporozoites 343

Tomimura T → Sugiyama H

Toussaint R → Fournier A

Trenholme KR, Phillips RS: The use of murine feeder cells in the cultivation of *Plasmodium falciparum* asexual blood stages 518

Turner CMR, Menrath M, Tait A: Life-cycle-stage- and stock-specific labelling by monoclonal antibodies of *Trypanosoma brucei* procyclic forms 414

Ubeira FM → Leiro J

Uchikawa R → Kawanabe M

Uni S → Iseki M

Uno T → Takahashi Y

Uphoff M → Raether W

Van der Schaft PH → Vial HJ

Van Marck EAE → Anthoons JAMS

Vanparijs O → Verheyen A

Van Zon AAJC → Schetters TPM

Vázquez RC → Ortega-Pierres G

Vercruyse J, Southgate VR, Rollinson D, Hilderson H: Experimental chemotherapy of *Schistosoma curassoni* in mice 559

Verheyen A, Maes L, Coussement W, Vanparijs O, Lauwers F, Vlaminckx E, Marsboom R: Ultrastructural evaluation of the effects of diclazuril on the endogenous stages of *Eimeria maxima* and *E. brunetti* in experimentally inoculated chickens 604

Vial HJ, Van der Schaft PH, Beaumelle BD, Thuet MJ, Op den Kamp JAF: Improved isolation of *Plasmodium knowlesi*-infected erythrocyte host-cell membrane on polycationic beads 419

Vlaminckx E → Verheyen A

Waki S, Takagi T, Suzuki M: Acquisition of protective immunity in mice through infection with an attenuated isolate and its failure in parent virulent *Plasmodium berghei* 614

Wall T de → Diesing L

Wallbanks KR → Mungomba LM

Walter RD → Singh RP

Wamachi A → Knight M

Warlow A → Southgate VR

Warton A → Kon VB

Webb RA, Eklove H: Demonstration of intense glutamate-like immunoreactivity in the longitudinal nerve cords of the cestode *Hymenolepis diminuta* 545

Webster HK → Krungkrai J

Wells DJ → Demeš P

Wikgren MC → Gustafsson MKS

Wiser MF: *Plasmodium* antigens external to the parasite but within the infected erythrocyte 206

Wittich R-M → Singh RP

Worbes H, Thompson RCA, Eckert J: Occurrence of the cattle strain of *Echinococcus granulosus* in the German Democratic Republic 495

Yagi J → Takahashi Y

Yagita K → Endo T

Yagita K → Yasuda T

Yamada M → Yoshikawa H

Yamada S → Takahashi Y

Yamakami Y → Akao S

Yamane Y, Bylund G, Abe K, Osaki Y, Okamoto T: Scanning electron microscopic study of four *Diphyllobothrium* species 238

Yamane Y, Shiwaku K, Abe K, Osaki Y, Okamoto T: The taxonomic differences of embryonic hooks in *Diphyllobothrium nihonkaiense*, *D. latum* and *D. dendriticum* 549

Yasuda T, Yagita K, Nakamura T, Endo T: Immunocytochemical localization of actin in *Toxoplasma gondii* 107

Yasuda T → Endo T

Yi X → Knight M

Yoshida Y → Yoshikawa H

Yoshikawa H, Yamada M, Matsumoto Y, Yoshida Y: Variations in egg size of *Trichuris trichiura* 649

Yuthavong Y → Krungkrai J

Zahner H, Sänger I, Chatterjee KH, Seibold G: Altered immune response (humoral and delayed-type hypersensitivity reactions) to sheep red blood cells in the course of experimental filarial infections (*Litomosoides carinii*, *Brugia malayi*, *Acanthocheilonema viteae*) of *Mastomys natalensis* 401

Zahner H → Reiner G

Zhang Y → Hüther AM

Zweigarth E, Röttcher D: Efficacy of experimental trypanocidal compounds against a multiple drug-resistant *Trypanosoma brucei brucei* stock in mice 178